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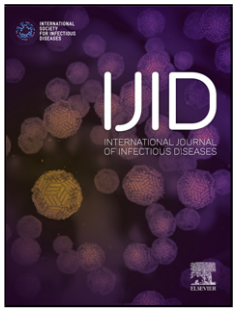

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Idiopathic bone marrow edema with joint effusion - a differential diagnosis to infectious osteomyelitis

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Keywords: idiopathic bone marrow edema; autoimmune; fractures; osteomyelitis

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Text

A 45-year-old healthy man reports progressive right hip pain during walking without trauma history or systemic inflammation. Pain responds favorably to ibuprofen and/or rest. Magnetic Resonance Imaging (MRI) yields homogenous inflammation with effusion into the joint (Figure 1). We radiologically diagnose idiopathic bone marrow edema (IBME) of the femoral head; and advise partial off-loading, without further biopsies. The patient renounces on crutches and relies on aspirin, ibuprofen and intranasal calcitonin during four weeks. Two months later, his pain gradually disappears within four weeks. The control MRI at five months is free of inflammation. The patient remains without pain four years after.

IBME is a rare, (auto)immune disease of unknown origin, affecting mostly males between 30-60 years and usually the lower extremity bones. Diagnosis is by MRI (low signal on T1, lack of subchondral changes, and high signal on T2; Emad et al., 2012). Biopsies are not necessary. Resolution is spontaneous. Affected persons must be told to have patience. Recurrences, osteonecrosis and fractures in severe cases are possible. Treatment is symptomatic and anti-inflammatory. Off-loading, calcitonin or osteoporotic medication are anecdotal and of uncertain evidence (Ikemura et al., 2016), while intravenous prostaglandins represent promising current research (Meizer et al., 2005).

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Patient consent

The patient consented by signature to the publication of his history and photographs.

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Conflict of interest

The authors have no conflict of interest to declare. This publication fulfils the ethical requirements of the Declaration of Helsinki.

Transparency declarations

None to declare. Parts of the manuscript have been presented as a poster at the Swiss National Conference of Infectious Diseases, 30-31August 2017, Basel, Switzerland. The patient consents to this publication of his history and photographs.

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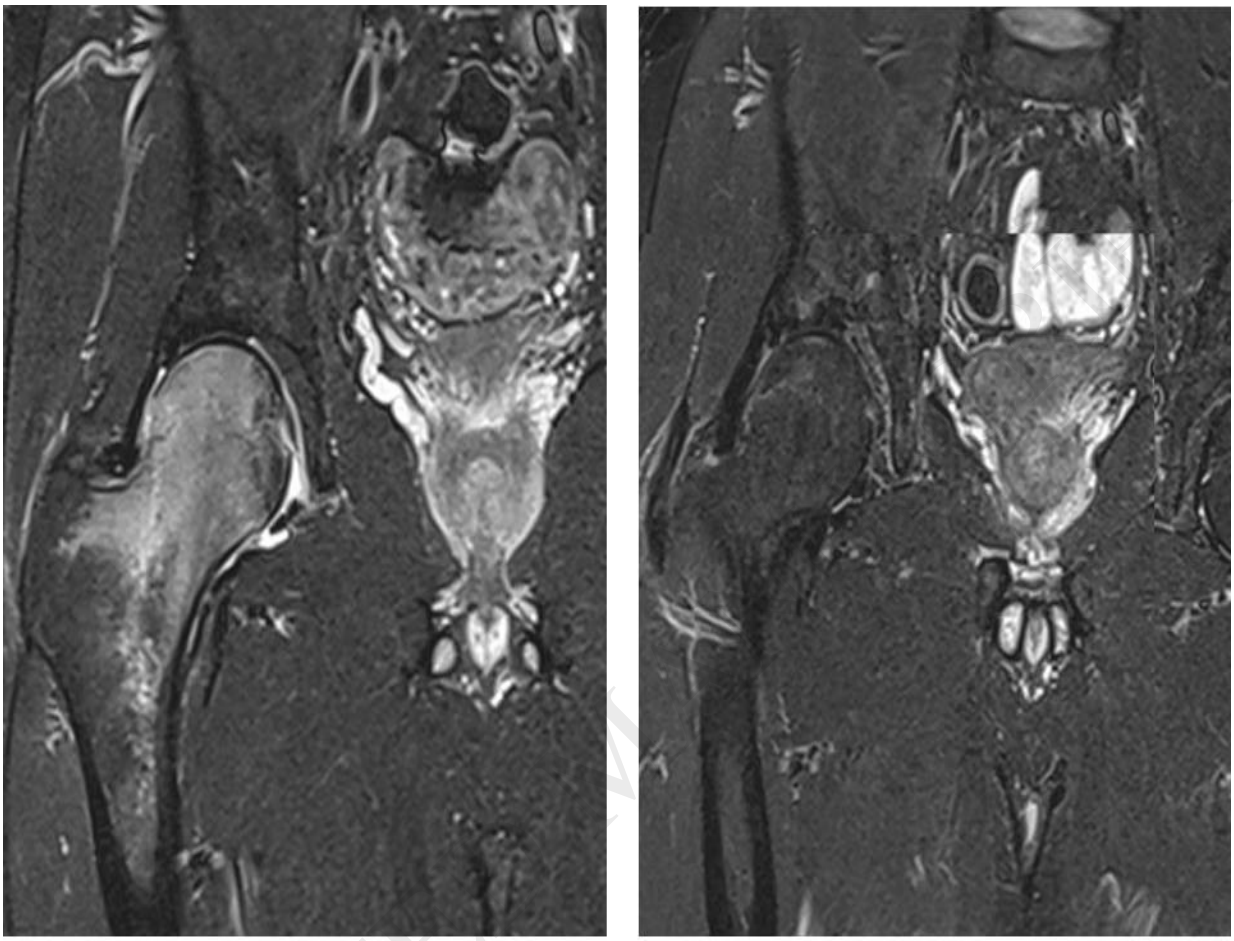
Figure legend

Figure.1 45 year-old male with idiopathic bone marrow edema of the right femoral head and intraarticular effusions. Five months' time delay between diagnosis (left) and control (right)



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